SOME OBSERVATIONS ON PROFESSOR CASSEL'S PAPER

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Anything from Professor Cassel's pen is sure to be interesting and important. The paper under discussion raises a great many important issues. I shall content myself with a series of comments upon certain aspects of it rather than try to give a systematic treatment to the subject of the paper as a whole.

The basis of Professor Cassel's doctrine is a very rigorous form of the quantity theory of money. For this theory the level of prices is a simple function of the number of exchanges on the one hand, and the quantity of circulating medium on the other, and it makes no difference whether the circulating medium is made of gold or of paper, or whether the paper is redeemable in gold or irredeemable. It is purely a question of the number of monetary counters. The number of exchanges, moreover, is commonly confused by quantity theorists (including Professor Cassel in the paper before us), with *the stock of commodities*, although in point of fact *the volume of exchange* is primarily a function of the amount of speculative turnover. For every bushel of wheat that came to the Chicago grain market in 1915 there were sixty-two bushels sold in futures alone, to say nothing of an enormous volume of spot transactions. Volume of exchanges may be very great or may be very small with a given stock of commodities. With a given stock of commodities it may vary radically in the same market from time to time, and it may vary greatly as among different markets at the same time. A general discussion of the quantity theory is not called for in this connection and the writer contents himself with reference to his book, *The Value of Money*, in which he has sought to demonstrate the fallacy of that general type of reasoning. The interest here is in seeing certain consequences that flow from the quantity theory in connection with the problem of the international exchanges, and certain errors in Professor Cassel's conclusions which the employment of the quantity theory involves.

Professor Cassel's position appears to be that the international exchanges are primarily governed by what he calls the *purchasing power parity*, that is, by the relative levels of prices in two different countries, the price level in each of the two different countries being determined by the quantity of money and volume of trade in each country. Any deviation in the exchange rates from this purchasing power parity he regards as abnormal, temporary and unimportant. Thus, he says, "When the exchanges move against a country people generally explain it as a result of an adverse balance of trade, but this explanation is obviously quite inadequate if the deviation of the exchanges is considerable, and has more than a temporary character." Again, he refers to such factors as "distrust in the future of the monetary standard" as merely a

cause for temporary deviation from the exchange rates indicated by the purchasing power parity, and argues that, when deviation from the purchasing power parity occurs, influences are set in motion which would "tend to enhance the value of the B-money in A and bring it up again to its purchasing power parity, which is, therefore, the point of equilibrium for the exchanges."

The notion that exchange rates and gold movements between two countries, both of which are on the gold standard, are governed by their relative price levels, is a very indefinite and inaccurate notion. It is true that the prices of articles which enter into international trade have a great deal to do with international gold movements, and with the international exchange rates. If such prices are high in country A and low in country B, the tendency will be for goods to leave country B and for gold to come to country A, and for the exchange rates to be adverse to A and to be favorable to B. But articles of international commerce make up a relatively small part of the articles which must be considered in determining price levels. Many commodities are too bulky to move far. The whole body of wages and house rents, to say nothing of real estate prices and the prices of local securities, have remote and incidental control over the gold movements. Further, as is well known, discount rates, international banking transactions and the like, normally and regularly influence the gold movements and the exchange rates in a very powerful way. Further, a country in which the general level of prices is rising in a period of prosperity may easily draw gold away from a country which is going through a period of depression, and in which prices are falling. Gold reserves may be piling up in the latter country and not needed for business expansion there, while gold is needed in the country with active business and rising prices, and higher discount rates may easily tempt it away from the country of falling prices.

Even though something be granted, however, to the validity of the notion that comparative price levels[1] affect gold movements and international exchange rates in a situation where two countries are both on the gold standard, and where the movement of gold is free, it by no means follows that this will hold true in the type of case which Professor Cassel is discussing, namely, exchanges among countries, all of which are on an *interconvertible* paper money basis. *Here there are simply no parities at all.* Here there is no possible basis for stability, except as one of the countries with a stronger position may "peg" the exchanges of the weaker country by giving it unlimited credit—and even this as a long run matter is exceedingly doubtful and difficult. The great fact which governs the value of irredeemable paper money is, not its quantity directly, but rather the prospect of its being redeemed in gold.[2] The quantity of paper outstanding will, of course, greatly affect this prospect, just as the volume of debt which an

[1] The writer ventures to refer to the chapter in his *Value of Money* on the "Quantity Theory and International Gold Movements," pages 315–320.

[2] That this is not the whole story is indicated in the writer's chapter on "Dodo Bones" in *The Value of Money.*

individual owes will affect the prospect of his being able to meet his debts and the standing of his credit in the markets. But a large volume of paper money issued by a strong government may easily have a higher value per unit than a smaller volume of paper issued by a weak government. Inconvertible paper money is at the mercy of every rumor affecting the credit of the governments. Political events, battles, policies in taxation, the success or failure of great funding loans, the volume of floating debt of the government apart from the circulating paper money, labor conditions, the export and import situation, the prevalence or absence of social unrest, the strength or weakness of political alliances, the volume of gold reserves, the vigor or timidity of the government's gold policy—all these things, changing day by day, govern the value of the paper money, govern its standing in the international exchange markets and influence powerfully the level of prices within the country. There are three great markets in which the value of such paper money may be measured. One is the foreign exchange markets; the second is the gold market, if active, open and free trading in gold is permitted; the third, the markets for commodities, securities, land and labor. The matter has been elaborately worked out for the period of the greenbacks in the United States from 1862 to 1879. I would refer here to Wesley C. Mitchell's well known studies, and particularly to his *History of the Greenbacks*. Variations in the value of the greenbacks were measured in all three of these ways in the United States during this period. The prices of gold in the free gold market in New York and the price of sterling exchange moved very closely together. The prices of commodities in the United States moved more slowly. If, however, the curves for the standing of the greenbacks in those three great markets are plotted, the general parallelism among them is very striking. There was always, however, a substantial lag for the movements of commodity prices. Certainly, therefore, it could not be said that the course of commodity prices governed the exchanges. The more highly organized exchange market moved *first* and the less highly organized commodity markets responded less rapidly to changes in the value of the greenbacks, growing out of variations in the world's belief in their prospect of redemption.

In recent months the same thing has happened in Germany with mark exchange and commodity prices. When the exchange rate was four or five cents (American) to the mark, a distinguished European economist, reasoning on the same basis that Professor Cassel is now employing (namely that the purchasing power parities would govern the exchange rates), presented the fact that prices in Germany had not risen as fast as the mark had fallen in the international markets, and urged that consequently a rise in marks was to be expected. The prediction failed. Marks continued their downward course until they reached one cent per mark. Prices in Germany, though they have not risen as fast as the marks have fallen, continue to rise. The purchasing power parity did not govern the exchange rate, and does not govern it. Rather, both the internal purchasing power of the mark and its external standing are

governed by more fundamental forces, namely, the *value of the mark*, which primarily reflects the degree of expectation that it will some day be made good in gold. This expectation has steadily diminished as Germany's troubles and difficulties have become more apparent. The increased issue of marks, indicative of continued weakness on the part of the German Government and leading to an increase of the burden on the Reichsbank, has of course accelerated the process.

The heavy adverse balances of trade of virtually all the countries of Europe are factors of first magnitude in affecting their exchange rates. In part, for countries like Germany and some others, the great excess of imports is a reflection of the rapid fall in the *internal* value of the paper money. People in Germany do not check their foreign purchases as the exchange rates turn against them, because they expect the rates to be still more adverse in the future, and hasten to buy all they can before the bottom drops out entirely. They treat their money like overripe fruit, and get rid of it before it spoils on their hands. In part, however, even for the European countries whose currencies are soundest, there are heavily adverse exchange rates because of the sheer burden of the balance of quick liabilities to the United States and other non-European parts of the world, due to the one-sided flow of foreign trade. For Britain, *e.g.*, the exchanges are burdened not only by the internal depreciation of the paper pound, but also by the adverse trade balance, and, in addition, by Britain's efforts to give credit to the Continent, through buying Continental exchanges, and through selling on long time to the Continent. External depreciation has probably gone further than internal depreciation for the pound sterling. For some other countries external depreciation has probably not yet measured adequately the internal depreciation.

Professor Cassel rejects as "a popular idea," the notion that a shortage in commodities would cause a rise in prices, which would necessitate the creation of more money, declaring it "an obvious fallacy." In general, he minimizes the extent to which shortages of goods have occurred during the war, suggesting the figure of 10 per cent at one place as indicating the shortages of commodities, and indicating a 20 or 30 per cent shortage as apparently an impossible outside limit. That rising prices can occasion and do occasion an increase in note issue under an elastic banking system, is, however, one of the commonplaces of banking theory. John Stuart Mill[3] gives it his sanction, agreeing with the contention of Tooke that "in point of fact, in every signal instance of a rise or fall of prices, the rise or fall has preceded, and therefore could not be the effect of, an enlargement or contraction of the bank circulation." (This relates to the period covered by Tooke's *History of Prices*, down to 1832.)

In the writer's view, Professor Cassel minimizes to a degree that is almost grotesque the extent to which shortages of goods have been brought about by the tremendous wastes and demoralized production of the last five years. In ordinary times the

[3] *Principles of Political Economy*, Book 3, Chapter 24, par. 1.

world lives from hand to mouth. The accumulated stocks of goods, available for consumption at any given moment, are normally small. It was estimated before the war that England usually had on hand about a six weeks' supply of food, and that a six weeks' interruption of her shipping would consequently bring England to the verge of starvation, since the bulk of her food comes in from abroad. The great bulk of the wealth of the United States consists of real estate, railways and their equipment, trolley lines, telegraph and telephone systems and the like—fixed capital and land rather than wealth available for immediate consumption. Comparing the income of the people of the United States with their supply of consumable goods on hand at any given time in the year 1912, the writer feels safe in estimating that a four months' supply of consumable goods would be the outside limit of our current stocks in that year, and that cessation of production for anything like four months would have brought us to utter destitution.

Such a decrease and disorganization of production, and such a wasteful consumption as the World War brought about, necessarily curtailed the world's stocks so greatly as to make a price revolution inevitable. The world cannot live upon its accumulated wealth. Land, bricks, mortar, rails and bridges, houses and factories cannot be used for food or clothing. Only the current product, which makes a very minor part of the total wealth of the world, is available for immediate consumption. In measuring the effects of the war's waste upon prices, then, we must institute comparison not between the waste of the war and the total wealth of the world, but rather between the waste of consumable goods in the war and the current stocks of consumable goods in the world. It is absurd to deny that the war has created great scarcities. It is in these scarcities that we must find the major explanation of the changes in the *gold prices* of goods that have occurred during and since the war.

These considerations make it clear also that when production and consumption come back to something like normal relations, when exports and imports come back to normal equilibrium, when stocks of goods are replenished again, when labor is fully and efficiently utilized and wastes and extravagance reduced, relief from high prices in the United States will have been brought about.

The countries in which the gold standard has been abandoned have, of course, a more thorny path through which to go. For some of them, as Austria and Russia, the difficulties of restoring their currencies may be so great that we may well suppose them impossible. For others, like Great Britain, the restoration of the gold standard in a reasonable time may be confidently expected. The restoration of the gold standard, even in Austria and Russia, may be looked for by the same course that Mexico employed two or three years ago when she frankly repudiated her unmanageable mass of paper money and proclaimed a new gold standard, making only hard money legal tender. It may indeed happen that the countries where monetary chaos has gone farthest will be the very first to come back on a hard money basis, through the complete unwillingness of their

people to accept any other kind of money. For other countries there may be a prolonged period during which a struggle will be made to restore equilibrium between taxes and outgo in the public budgets, and to fund the public floating debts, including the debts of the states to the banks of issue, with a consequent reduction in the volume of bank notes outstanding, and with the ultimate resumption of specie payments held in view.

One must protest, however, against Professor Cassel's statement that "the restoration of the old gold parities is, as everybody knows, quite out of the question." Some countries may be unable to reëstablish their old gold standards, but many of the countries of Europe will be able to do so, and most will at least be justified in making the attempt to do so. In any case it can be confidently asserted that no stability in international exchange rates will be possible until the currencies of the world are again at a fixed ratio with gold, and that the only way in which a currency can be kept at a fixed ratio with gold is to redeem it directly or indirectly in gold on demand. I say "directly or indirectly" wishing to allow room in the generalization for such cases as "gold exchange standard," under which the gold reserve is held in a foreign country, and under which the currency of a country is redeemed in gold bills drawn on that foreign country, rather than in actual coin. This constitutes, however, merely a modification of the gold standard proper, and can work effectively only if actual gold can be secured at the end of the process. We must especially guard ourselves against the notion that any scheme for the *regulation* of the *quantity* of an *irredeemable* paper money can lead to stability, either in the internal or in the external value of that paper.

In summary: finding much that is interesting and important in Professor Cassel's paper, I limit my discussion to the points of dissent. I think that he minimizes the really important factors affecting the exchange rates, such as the trade balances, the growing distrust of irredeemable paper money, and the like, and that he is dealing with a myth when he speaks of "purchasing power parities" as governing exchange rates between countries, both of which have inconvertible paper money. The only parity that can have any meaning in international exchange rates is a gold (or silver) parity, and when gold is abandoned, "parity" ceases to mean anything. Stability in international exchange rates depends on the restoration of the gold standard.

DISCUSSION OF PROFESSOR CASSEL'S ARTICLE

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It is a keen intellectual pleasure to read Professor Cassel's brilliant statement on "The World's Monetary Problem" and to contrast it with the puerile inanities which form the basis of most that is written and spoken on the subject.

To show how widely Professor Cassel's views differ from those generally held, it may be well to place in close